Proficy HMI/SCADA - iFIX with FIX Desktop

Getting Started Guide

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Introduction

Before you begin installing this product, please take some time to review this *Getting Started Guide*.

The guide includes information about the following:

- Installing iFIX
- Installing FIX Desktop
- Upgrading from earlier versions of iFIX
- Upgrading from FIX v7.x
- Supported networking components

Reference Documents

For more information on the System Configuration Utility, troubleshooting your set-up, working with the iFIX WorkSpace, or setting up a process database or SCADA system, please refer to the following manuals:

- *Setting Up the Environment*
- *Understanding iFIX*
- *Building a SCADA System*

1. General Installation Information

This chapter provides general information you need in order to install iFIX® with FIX Desktop including:

- Hardware requirements, including required computer hardware, recommended computers, required memory, and required hard disk space.
- Installing the hardware key and replacing defective keys.
- iFIX software requirements, including operating systems, supported regional settings, video drivers, optimizing virtual memory, and running iFIX as a service.
- Optional installation features, including online registration, installing the Sample System, and installing optional hardware.
- Installing iFIX with other applications including FIX32, plug and solve components, and Microsoft Office.

Set-up Overview

When you are ready to begin setting up your iFIX environment, use the following steps to set up your nodes:

[1] Set up each computer you require. Use the *Hardware Requirements* section as a guide, and refer to the user manual that accompanies each computer for detailed information.

[2] Install and optimize Windows on each computer as needed. Also make sure you create a login account with administrator rights so you can install iFIX later. For instructions on optimizing Windows, refer to the *Working with the Hardware Key and Windows* chapter of the *Setting Up the Environment* manual.

[3] Set up the network adapters and network software required for each computer. Refer to the *Networking iFIX Nodes* and *Advanced Topics* chapters of the Setting Up the Environment manual for more information.

[4] Install the hardware key and any other hardware you may have purchased. Refer to the section *Installing the Hardware Key* for instructions on attaching the key to your computer. For information on installing other hardware, refer to the hardware installation guide that accompanies it.

[5] Install and configure iFIX on each computer. Make sure that the user installing iFIX is a member of the Administrators Windows group. Refer to the *Configuring iFIX Using the SCU* chapter of the *Setting Up the Environment* manual for more information on configuring iFIX.

Hardware Requirements

The minimum iFIX with FIX Desktop hardware requirements are:

- A Pentium II-based 266 MHz computer. For optimum performance, GE Fanuc recommends a Pentium 4-based 1 GHz computer. For a list of machines tested by GE Fanuc, refer to the *Recommended Computers* section.

- A minimum of 96MB RAM for SCADA servers and iClients. Refer to the *Memory Requirements* section for more information.

- 120MB of free hard drive space to install a typical iFIX system, including pictures, databases, alarm files, and other data files.

  iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.

  Other GE Fanuc products, such as iDownTime, Proficy Historian, and infoAgent, impose additional requirements. Refer to the appropriate electronic manual for specific system requirements.

- A CD-ROM drive.

- NETBIOS-compatible or TCP/IP-compatible network interface adapter for network communication and certain I/O drivers.

  NOTE: *Because Microsoft does not support NetBIOS on Windows XP or Windows Server 2003, iFIX installed on Windows XP or Windows Server 2003 also does not support NetBIOS.*

- One parallel port or free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.

- SVGA or better color graphics monitor and a 100% IBM-compatible, 24-bit graphics card capable of 800x600 resolution and at least 65,535 colors.

- Two-button mouse or compatible pointing device (such as a touch screen).

Recommended Computers

iFIX has been tested by GE Fanuc on the following machines that were running Windows NT, Windows 2000, Windows XP, and Windows Server 2003:

- Compaq Deskpro
- Compaq EVO D500 (Desktop 500 Minitower)
- Dell Dimension
- Dell Optiplex GX1
- Dell Optiplex GX110
- Dell Optiplex GX200
- Dell Precision 340
- Dell Precision 530 Dual Xeon
- Dell Precision Workstation 420MT
- Dell Precision Dual
- Gateway 8400 Server (Quad Processor)
- IBM NetVista
- Micron Millennia
- Stratus® ftStratus® 3300

While GE Fanuc cannot guarantee the integrity of any computer, our testing has shown a higher potential for problems with the economy lines of computers on the market. Because of these problems, GE Fanuc

does not recommend the use of value or economy type computers with iFIX. Instead, GE Fanuc recommends you invest in the higher end (premier) line of computers when purchasing computer hardware.

Memory Requirements

iClients and SCADA nodes require at least 96MB RAM. This configuration provides enough memory to run iFIX applications. GE Fanuc recommends at least 128MB RAM.

NOTE: *As more applications run simultaneously on a SCADA server, performance decreases. Whenever possible, run additional applications on different computers.*

If the size of your process database is over 1MB, add 1 megabyte of memory for each megabyte of database size. For example, if your database is 2MB in size, your SCADA server requires 98MB minimum (96+2=98).

If your picture cache size increases, your memory requirements should increase:

- 2 to 3 times the file size for each picture that does not include bitmaps and controls.

- 3 to 4 times the file size for each picture that includes bitmaps and controls.

For example, a 2 megabyte file that does not include bitmaps and controls requires a 4 to 6 megabyte increase in memory. A 2 megabyte file that includes bitmaps and controls requires an increase in the memory of 6 to 8 megabytes.

Disk Space Requirements

The Intellution iFIX WorkSpace checks to make sure you have at least 10 MB of disk space when you save a picture or a schedule. If there is insufficient disk space, the WorkSpace may react unpredictably and you may lose your work.

To help minimize this problem, the WorkSpace warns you if you have less than 10 MB of disk space available. Although you can continue loading the software, we recommend that you stop iFIX, free some disk space, then restart. Otherwise, the WorkSpace may become unstable.

The WorkSpace examines the iFIX Picture path and the Windows TEMP path when it starts. If you change either path so that they reference different drives, for example, D:\Dynamics and C:\Temp, the WorkSpace requires 10 MB on each drive.

You may find that 10MB is not enough space to protect against instability during file save operations. You can increase this threshold by changing the FreeDiskSpace parameter in the FixUserPreferences.ini file. This parameter sets the minimum amount of space that the WorkSpace requires in bytes. By default, the parameter is set as follows:

```
[AppRunPreferences]
FreeDiskSpace=10000000
```

To change this setting:

[1] Shut down the WorkSpace.

[2] Locate the FixUserPreferences.ini file in the Local path.

[3] Open the file with a text editor and change the parameter.

[4] Save the .INI file and restart the WorkSpace.

The Hardware Key

The hardware key you use to run iFIX with FIX Desktop:

- Controls and enables software options available to your installation.

- Uses a utility to electronically reprogram options you choose to upgrade or change. Consequently, you are no longer required to exchange hardware keys for version updates or option changes.

Two types of hardware key are offered: one that supports parallel port configurations, and a key that supports USB port configurations.

iFIX runs in demo mode for two hours if the key is not installed or found. Hardware keys from version 2.5 and older will not work. You can exchange the older key by contacting your iFIX sales representative. You will need to use iKeyUpdate to upgrade your hardware keys from version 2.6 and later. For more information, see the *Upgrading from iFIX v2.6 or Later* section.

Be sure to file your hardware key packing slip in a safe location. The codes on this slip are necessary for GE Fanuc to quickly duplicate the key in case it is damaged or misplaced. You can verify that your serial number matches the serial number on the hardware key packing slip by using the iKeyDiag utility to detect and display your hardware key settings. For more information, see the Using iKeyDiag section of the *Setting Up the Environment* manual.

Installing the Hardware Key

A hardware key is included with your iFIX software. You must install your hardware key in order to access all the components of the iFIX software you purchased. The following sections provide procedures for installing your hardware key. Follow the appropriate procedures for your key type.

Parallel Port Hardware Key and Microsoft Windows

GE Fanuc supports the installation of a parallel port hardware key on systems running Windows.

To install the parallel port hardware key:

[1] Power off the computer and all peripheral devices before installing the hardware key; it is sensitive to static electricity.

[2] Remove any connections to your computer's parallel port.

[3] Secure the hardware key in the parallel port and tighten the screws.

IMPORTANT: *Do not remove the hardware key from your node while iFIX is running. If you do, iFIX features will shut down and you will need to restart iFIX. You may also damage the hardware key if you remove it while iFIX is running.*

[4] If you had any equipment connected to your parallel port, reconnect to the back of the hardware key.

USB Port Hardware Key and Microsoft Windows

GE Fanuc supports the installation of the USB port hardware key only on systems running Windows 2000, Windows XP, or Windows Server 2003.

At this time, GE Fanuc does not support USB keys connected through an external USB hub.

IMPORTANT: *If you are using a Rainbow/SuperPro Key from a Previous iFIX release, do not install the hardware until after you install the iFIX product. If you accidentally installed the hardware first, follow the steps in the Recovery for Improper Installation of the Rainbow SuperPro USB Hardware Key section in this topic.*

To install the USB port hardware key license:

[1] Run iDemo.exe to begin the iFIX installation process. You can find this file on the iFIX installation CD in the DemoShield folder.

[2] Click Install iFIX 3.5. An installation screen appears.

[3] Insert your USB hardware key in the appropriate port.

IMPORTANT: *If you are using a Rainbow/SuperPro Key from a previous iFIX release, you also need to install the Sentinel driver so that iFIX recognizes this key. To install this driver, click the Sentinel button on the installation screen.*

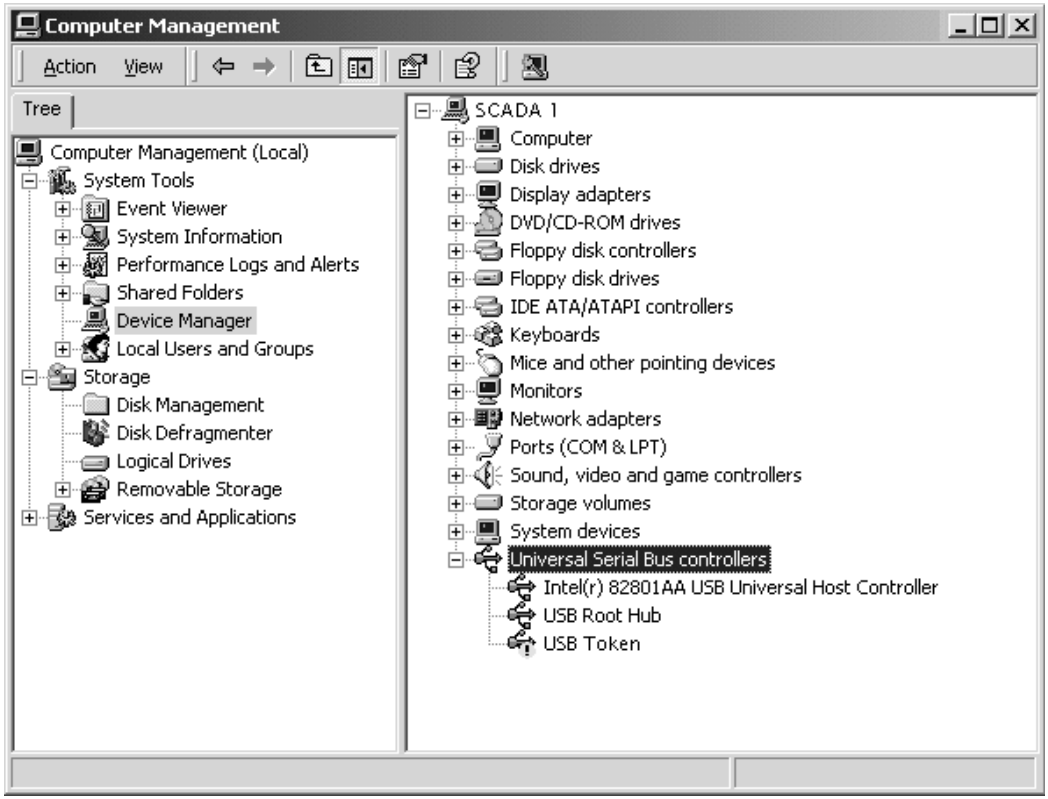
[4] A message box, similar to the following figure, appears as the hardware key installs:

[5] Once the hardware installation and licensing is complete, click Retry in the iFIX installation dialog box.

Recovery for Improper Installation of the Rainbow SuperPro USB Hardware Key

If you inserted the Rainbow SuperPro USB hardware key prior to installing the Sentinel System Driver, a dialog box requesting USB drivers appears. Cancel this dialog box, and then follow these steps to uninstall the incorrectly installed USB hardware key:

[1] Right-click the My Computer icon on your desktop and select Manage from the right-click menu. The following dialog box appears:



[2] Select Device manager from the System Tools tree.

[3] Select Universal Serial Bus controllers from the right pane of the Computer Management dialog box.

[4] Right-click the USB Token. Choose Uninstall from the right-click menu.

[5] Click OK to confirm uninstall.

[6] Remove the USB hardware key from your computer and reboot your computer.

[7] Continue the correct installation using procedures from the *USB Port Hardware Key and Microsoft Windows* section in this topic.

Troubleshooting Hardware Key Installation

If the hardware key does not install properly, you may find that even though you have followed the installation directions for your hardware key, you see the following message from iFIX:

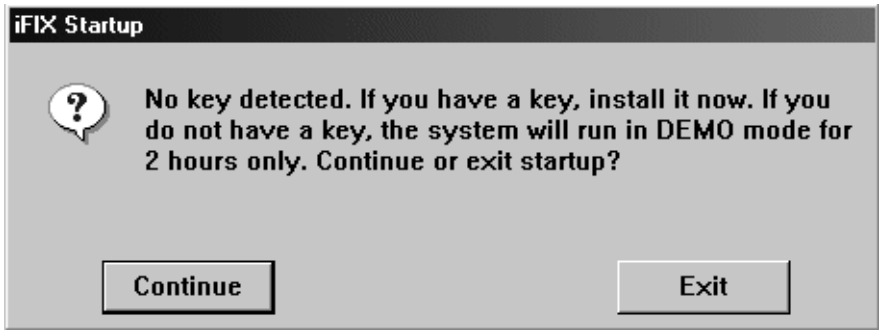

iFIX Startup
No key detected. If you have a key, install it now. If you do not have a key, the system will run in DEMO mode for 2 hours only. Continue or exit startup?
Continue
Exit

Figure 1-1: Message when No Key is Detected

First, check to see that your hardware key is firmly attached. Next, uninstall and reinstall the driver for the hardware key. If this driver has been incorrectly uninstalled, it may behave unpredictably.

Troubleshooting the New Aladdin HASP USB Key...

If the Aladdin HASP USB key does not appear to be working, you can reinstall the Intellution Licensing to recover from the improper install. When the Aladdin HASP key is not communicating correctly, you will notice that the indicator light at the end of the key is off.

To reinstall the Intellution Licensing, follow these steps:

[1] Reinstall the Intellution Licensing by clicking the Setup.exe file in the License folder on the iFIX product installation CD.

[2] Click Finish when the licensing install completes.

Troubleshooting the Rainbow SuperPro USB Key from a Previous iFIX Release...

If the Rainbow SuperPro USB key does not appear to be working, you can uninstall and reinstall the Sentinel System Driver to recover from the improper install.

To uninstall the Sentinel System driver for the Rainbow SuperPro key:

[1] Double-click Add/Remove Programs in your Control Panel.

[2] Select the Sentinel System Driver from the list of currently installed programs and click Remove.

[3] Run the setup.exe file from the following directory on your iFIX Installation disc:

\SentinelDriver

If you see the *Message when No Key is Detected* and do not see Sentinel System Driver in your list of currently installed programs, you may have implemented the Windows XP or IBM rollback feature to restore your registry to a previous state. This process does not remove files, and the Sentinel System Driver will not install over existing files. You will need to remove the file manually.

To remove the file manually:

- Delete the following file:

  WINNT\system32\drivers\sentinel.sys

To reinstall the Sentinel System Driver:

[1] Click Sentinel button from the install screen.

[2] After the driver installs, plug the key into the USB port.

Replacing Defective Hardware Keys

Defective hardware keys cause iFIX to generate the following error message when it starts or when you start an application:

```
ERROR - MISSING SECURITY KEY OR FILE
```

The message may also indicate that the hardware key is not securely installed. Be sure to check the connection before assuming your hardware key is defective.

You can also tell if a hardware key is invalid by running the iKeyDiag.exe application in the Dynamics folder (the folder where you installed iFIX). The Licensing Info tab for the KeyDiag utility indicates whether the license is not current or invalid.

GE Fanuc replaces defective keys as quickly as possible. To obtain a replacement hardware key:

- Call your local GE Fanuc technical support representative. The support representative will instruct you to FAX a completed copy of a Merchandise Return Authorization form. On receipt of the form, GE Fanuc can program a new hardware key and send it to you overnight.

- When you receive the hardware key, you must return the old one along with a copy of the form sent with the new hardware key. GE Fanuc reserves the right to invoice you for defective hardware keys that are not returned.

Common Questions About USB Hardware Keys

This section describes some frequently asked questions about iFIX hardware keys.

What's the Difference Between the Aladdin HASP USB Key and Rainbow SuperPro USB Key?

The Aladdin HASP USB Key is the new hardware key that is provided with new iFIX v3.5 installations.

The Rainbow SuperPro USB Key was provided with previous iFIX releases. If you are upgrading from a previous release, you likely have one of these keys. This USB key is a lighter purple than the other key.

If I Have Both Types of USB Keys Plugged in, Which One Does iFIX Detect First?

iFIX detects the Aladdin HASP USB Key.

What Does the Light At the End of the Key Indicate?

For the Aladdin HASP USB Key, the light indicates that the key and the software are communicating. If this light is off, it would indicate a problem with the key.

For the Rainbow SuperPro USB Key, the light simply means that it is plugged in. It does not indicate if it is running correctly.

If I Move the USB Key To Another Port Is It Automatically Detected?

Yes. The Aladdin HASP USB key and Rainbow SuperPro USB key are automatically detected when moved to another USB port. The Rainbow SuperPro USB Key, additionally, displays a screen asking you to install the software again. There are no additionally screens requesting software to be installed for the Aladdin HASP USB key.

Software Requirements

The minimum iFIX with FIX Desktop software requirements are:

- One of the following operating systems:
  - Microsoft® Windows® NT v4.0, with Service Pack 6a.
  - Microsoft® Windows® 2000, Professional or Advanced Server Edition, with Service Pack 2 or greater recommended.
  - Microsoft® Windows® XP Professional, Service Pack 1 or greater. Since Windows XP has continuous updates, you should run the Windows update feature to get the latest software.
  - Microsoft® Windows® Server 2003, Standard or Enterprise Edition. Since Windows Server 2003 has continuous updates, you should run the Windows update feature to get the latest software.
- Network interface software for network communication and certain I/O drivers.

  NOTE: *Microsoft discontinued support for NetBEUI in Windows XP and Windows Server 2003. For more information on the discontinued support, beginning with Windows XP, refer to Microsoft Knowledge Base article Q306059.*
- An I/O driver for SCADA servers. GE Fanuc supplies I/O drivers for many programmable controllers or you may purchase a driver separately. Be certain that the I/O driver you purchase is compatible with your hardware. Contact your GE Fanuc Sales Representative or visit the GE Fanuc web site at http://www.gefanucautomation.com/products/fixiodrivers/default.asp for the latest list of drivers and supported hardware.
- Internet Explorer v5.5 or higher.

Third-Party Software Installed During the iFIX Install

Please note that the following third-party software is automatically installed with iFIX v3.5:

- MDAC version 2.71, Service Release 1
- Microsoft® VBA version 6.3

Notes on VBA and MDAC Software Installed with iFIX

During the installation of iFIX, both VBA and Microsoft Data Access Components (MDAC) are installed.

iFIX requires that these components be installed. If the versions of these components on the iFIX CD are newer than the versions on your computer, then the iFIX installation program updates the ones on your computer. If the versions on your computer are newer, then the iFIX installation program does not update them, and iFIX uses the most recent versions already on your computer instead.

NOTE: *Microsoft Windows XP and Windows Server 2003 already include MDAC, so this component is not installed on these operating systems when you install iFIX. You can use the Windows Update Service to update MDAC for these operating systems.*

iFIX v3.5 ships with VBA v6.3, which is the version included with Microsoft Office XP; it also ships MDAC v2.71, Service Release 1. This is the same version that shipped with Microsoft Windows XP, Service Pack 1.

If you have questions about the compatibility of MDAC with your system, refer to this web site: http://msdn.microsoft.com/library/default.asp?url=/downloads/list/dataaccess.asp, or contact Microsoft.

If you have questions about VBA, please visit: http://msdn.microsoft.com/vba/ for more information.

Additional Third Party Software on the iFIX CD

From the iFIX CD, you can also install the following programs:

- Microsoft® Internet Explorer v6.0, Service Pack 1
- Crystal Reports® Run-time files version 8.5 from Crystal Decisions

To install either of these programs, double-click the iDemo.exe file in the DemoShield folder of the iFIX CD to open the Install iFIX screen. On this screen, there are buttons to Install Internet Explorer or Install Crystal Reports Runtime.

Supported Regional Settings

iFIX supports the following regional settings available in the Windows Control Panel:

- Decimal symbol - one character
- Digit grouping symbol
- List separator - one character
- Time style
- Time separator
- Short date style
- Date separator

NOTE: *The decimal symbol and the digit grouping symbol cannot be the same character. Also, the time separator and the date separator cannot be the same character.*

Formatting the Time and Date

Avoid changing the time style or short date style in regional settings to values that are outside of the standard styles provided. Changing these values to non-standard styles may result in improperly formatting times and dates in some parts of iFIX.

iFIX supports the following short date formats, some of which may not be available in certain language versions of Windows:

- dd/mm/yy, or dd/mm/yyyy
- dd/yy/mm, or dd/yyyy/mm
- mm/dd/yy, or mm/dd/yyyy
- mm/yy/dd, or mm/yyyy/dd
- yy/dd/mm, or yyyy/dd/mm
- yy/mm/dd, or yyyy/mm/dd

Formatting the Regional Language Setting

Avoid changing the language setting once a timer has been used in a schedule. If changed, the date always reverts to 30/12/99, regardless of what you set the start time to be.

Setting the System Default Locale

The selected locale must be set as the system default.

Video Drivers

After much testing, GE Fanuc has found that some video drivers have unique problems which are only apparent when using these drivers. Additionally, GE Fanuc has found that many problems with video drivers occur in both iFIX applications and common applications, such as Excel and Word.

If you are experiencing problems with your video driver, try using it in a different mode to find out if the problem is unique to a specific configuration.

Using Third-party Video Drivers

If you need to use a third-party driver, please use the following guidelines to resolve any problems you may experience:

- Contact the manufacturer to ensure you have the latest version of the video driver. GE Fanuc has found that the latest version of third-party video drivers can fix some problems.

- If the latest version of the video driver does not fix the problem, notify the video driver manufacturer to see if they are aware of the problem.

- If all else fails to resolve the problem, contact GE Fanuc Technical Support.

Optimizing Virtual Memory

Through the use of paging files, Windows allocates space on your hard drive for use as if it were actually memory. This space is known as virtual memory. After you install Windows, be sure to optimize the virtual memory for use with iFIX. The following list describes how to optimize virtual memory in Windows to achieve maximum performance from iFIX.

To optimize the virtual memory paging file for iFIX in Windows:

[1] Double-click the System icon in the Windows Control Panel.

[2] In the Windows NT System Properties dialog box, click the Performance tab.

In the Windows 2000 System Properties dialog box, click the Advanced tab, then select Performance Options.

In the Windows XP System Properties dialog box, click the Advanced tab, then in the Performance group box, select Settings. In the Performance Options dialog box, click the Advanced Tab.

In the Windows Server 2003 System Properties dialog box, click the Advanced tab, then select Performance Options.

[3] Select Change in the Virtual Memory group box.

[4] Enter a value equal to three times your physical memory in the Initial Size field.

[5] Enter a value equal to three times your physical memory in the Maximum Size field.

[6] Select Set.

[7] Click OK to save the changes and exit the dialog box.

NOTE: *If the paging file is set to grow dynamically, your system may experience severe performance problems during run time. To ensure optimal performance, be sure that the Initial Size and Maximum Size of the paging file are the same so that the paging file does not grow dynamically.*

Running iFIX as a Service

If you are running iFIX as a service, please take note of the following information.

Windows Services

Do not stop the iFIX service or make changes to the iFIX configuration from the Services control panel. This applies to iFIX running on any operating system.

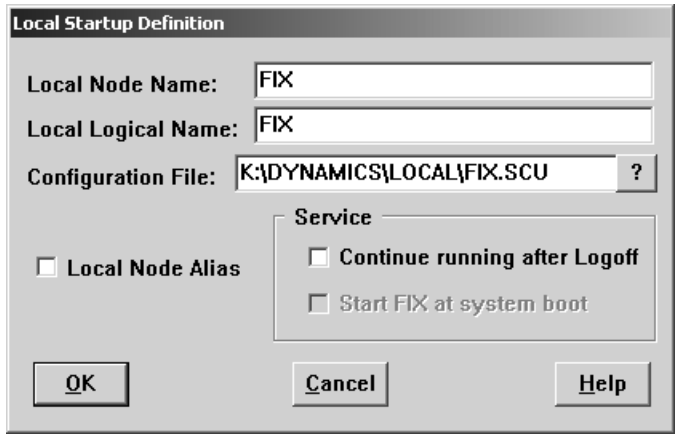
Disabling iFIX as a Service

To disable iFIX from running as a service, follow these steps:

[1] Start the SCU.

[2] Select Local Startup from the Configure menu. The Local Startup Definition dialog box appears.

[3] In the Service area of dialog box, clear both the *Continue running after logoff* and *Start iFIX at system boot* check boxes, as shown in the following figure.



[4] Click OK.

[5] Select Save from the File menu to save the SCU file.

[6] Exit the SCU.

[7] Restart iFIX.

iFIX Paths

Windows does not map network drives until a user logs in. Therefore, if running iFIX as a service under Windows, all iFIX paths must be set to a local drive.

Required Application Feature

You must assign the Enable Ctrl+Alt+Del application feature to the user that is logged in when iFIX is running as a service. Otherwise if a user logs out of the operating system while iFIX is running as a service, no one will be able to log back in to the operating system.

Running iFIX with Terminal Services

Running iFIX as a service under Terminal Services is not supported.

Installing the iFIX Software

To install iFIX software, follow these steps:

[1] Ensure your FIX software is not running, and close any other programs that are running.

[2] Log in to Windows with Administrator privileges.

[3] Insert the iFIX with FIX Desktop CD into the CD-ROM drive:

- If the iFIX product install screen appears automatically after you insert the CD, select Install iFIX from the list of options.
- If the Setup does not start automatically, select Run from the Start menu. Enter your CD drive letter, followed by a colon and a back slash and the command Setup.exe (for example, D:\Setup.exe), and then click OK.

[4] Wait for the licensing files to install. The Welcome screen appears.

[5] Click Next to continue. The iFIX Product License Agreement appears.

[6] If you agree with the license, click "I accept the agreement" to continue.

[7] Click Next. The Choose Destination Folder dialog box appears.

[8] Leave the default Dynamics path or click Browse to select a folder.

NOTE: *If you are upgrading from FIX32, make sure that you choose a location other than the folder that contains your FIX32 software, if it is installed on the same computer.* ***Do not install over a current FIX32 installation****.*

[9] Click Next to continue. The Setup Type dialog box appears.

[10] GE Fanuc recommends that you select the Typical install option.

[11] Click Next to continue. The progress of the installation displays on screen as the files are copied. After a few minutes, when the install finishes copying the files, the Node Information dialog box appears.

[12] Enter the Node Name.

[13] Enter the Node Type and Network Type, if applicable, and then click OK.

[14] Enter Remote SCADA nodes, if applicable. Verify that IP and Names are in the Hosts file.

[15] A message box appears asking if you want to enable SCADA support. Click Yes to continue. When the iFIX WorkSpace finishes registering, the product registration message box appears.

[16] Click Yes to register now and display a web page with the registration request, or click No to continue. A message box appears asking if you want to review the release notes.

[17] Review the Release Notes and close the notes after you are finished. The Setup Complete dialog box appears.

[18] Select Yes to restart the computer, and click Finish.

[19] When the computer restarts, log in to Windows with the same user name (with Administrator rights).

IMPORTANT: *If upgrading from FIX v7 to iFIX with FIX Desktop, do not start iFIX yet.*

Installing the FIX Desktop Software

To install FIX Desktop software after installing iFIX v3.5, follow these steps:

[1] Ensure your iFIX software is not running, and close any other programs that are running.

[2] Log in to Windows with Administrator privileges.

[3] Insert the iFIX with FIX Desktop CD into the CD-ROM drive:

- If the iFIX product install screen appears automatically after you insert the CD, select Install FIX Desktop for iFIX from the list of options.

- If the product install screen does not appear automatically, select Run from the Start menu. Enter your CD drive letter, followed by a colon and a back slash and the command Demoshield\iDemo.exe (for example, D:\Demoshield\iDemo.exe), and then click OK. Select Install FIX Desktop for iFIX from the list of options.

The FIX Desktop install begins. The Welcome screen appears.

[4] Click Next to continue. The Software License Agreement appears.

[5] If you agree with the license, click Yes to continue.

The progress of the installation displays on screen as the files are copied. When the install finishes copying files, a message box appears requesting that you review the release notes.

NOTE: *FIX Desktop applications are installed into the iFIX product folder. If you installed iFIX to the default location, this folder is C:\Dynamics. It is important that this folder is not the same folder as the v7.x product, if you are upgrading.*

[6] Click Yes to continue. A text file appears with the release notes.

[7] Review the release notes, and close the file when you are finished. The Setup Complete dialog box appears.

[8] Click Finish.

[9] Restart your computer.

IMPORTANT: *If upgrading from FIX v7, do not start iFIX yet. Refer to the Overview of Steps to Upgrade from FIX v7.x section for information on how to proceed.*

Online Registration

You can register iFIX online during the product installation. However, you can also register the product online after you have installed iFIX.

To register iFIX online:

[1] Select the Intellution iFIX WorkSpace Help from the WorkSpace Help menu, and then select Intellution On the Web.

[2] From the sub-menu that appears, select Register Online.

[3] Enter the appropriate fields on the registration form, and click Next until all pages are completed.

Using iFIX and FIX on the Same Computer

Although you can run iFIX and FIX Desktop applications at the same time, you cannot run iFIX and FIX v7 at the same time on a single computer. You can however, install iFIX and FIX v7 on the same computer. The following sections address issues that occur when installing iFIX and FIX v7 on the same computer.

NOTE: *Because the hardware key for iFIX with FIX Desktop is different from the FIX hardware key, remember to remove the iFIX hardware key and insert a FIX hardware key before installing or running FIX v7.*

General Notes on Installing FIX and iFIX on the Same Computer

When installing FIX v7 on a computer that already has iFIX installed (or vice versa) do not elect to use the current SCU configuration when prompted during the install. If you select to use the current SCU, both FIX and iFIX will launch with errors when you try to run either program after the install.

Installing iFIX on a FIX v7.0 Node

If you install iFIX on a node that has FIX installed and you have at least one v7 driver installed, the registry paths for FIX v7 are changed to iFIX paths. Therefore, when you run a FIX v7 application, such as the System Configuration Utility, you will receive errors.

To avoid these errors, install iFIX without I/O drivers. This preserves your FIX v7 paths in the registry.

Uninstalling iFIX and FIX v7.0

You can install iFIX and FIX v7. on the same computer. If you subsequently uninstall iFIX, you must re-install FIX v7.0.

Starting up FIX v7.0 After Installing iFIX

An application error occurs when you start up FIX v7.0 as a service under Windows after you install iFIX. The error occurs because both FIX v7.0 and iFIX v3.5 use the same key name (FIX) under the Services key in the registry. Therefore, when you install iFIX v3.5, it overwrites the entry for FIX v7.0.

Each product needs to have its own Services key. FIX v7.0 runs correctly if it is not run as a service.

The workaround for this problem is to edit the registry so that the Services key points to the service executable in the correct path. The key is located in HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\Fix. Set the ImagePath value to the correct path for fixsrv.exe.

Installing the Sample System

If you installed iFIX in the default directory structure, the Sample System will run with no problems. However, if you installed the Dynamics directory as a sub-directory in Program Files, Sample System will not run. To enable Sample System to run in this situation:

[1] Move the Sample System directory to C:\ or some other root.

[2] Copy the SampleSystem\Local folder and its contents back into the original install location in the Dynamics folder. For example, copy C:\SampleSystem\Local into C:\Program Files\Dynamics\SampleSystem\Local.

[3] Open the Sample System SCU from the Sample System directory.

[4] Change the following base paths to C:\Program~1\Dynamics\, or wherever you have installed the Dynamics directory, in the Sample System SCU Path Configuration dialog:

[a] Base

[b] Language

[c] Alarms

[d] Master Recipe

[e] Control Recipe

[5] Change the following base paths to C:\SampleSystem in the Sample System SCU Path Configuration dialog:

[a] Project

[b] Local

[c] Database

[d] Picture

[e] Application

[f] Historical

[g] Historical Data

[h] Alarm Areas (AAD)

[6] Change alarm area filtering for the enabled alarm services from the Use areas common to all services option to the Use “ALL” areas option in the Alarm Services Configuration dialog.

[7] Change the SCU path in the Sample System desktop icon target from C:\Program Files\Dynamics\SampleSystem\Local\Sample.scu to C:\SampleSystem\Local\Sample.scu or the new location.

NOTE: *The Sample System will not run if your Dynamics path contains a space. For example, if you install to C:\My Files\Dynamics\SampleSystem, the Sample System will not run. Follow the steps listed above to enable the Sample System to run.*

[8] Start the Sample System.

[9] Open the Security Configuration program (seccfg.exe).

[10] Click the Configuration button on the Security toolbox. The Configuration dialog box appears.

[11] Change the Security Path and Backup Path fields to the new Sample System location you created in step 1. For example, change C:\Program Files\Dynamics\SampleSystem\Local to the new path of C:\SampleSystem\Local.

This action copies the security configuration from the Sample System's installed location to the new location.

[12] Click OK and save the security configuration.

Optionally, you can delete the copy of the SampleSystem\Local folder in the install location. For example, you can delete the C:\Program Files\Dynamics\SampleSystem\Local folder.

Installing iFIX v3.5 after Uninstalling iVisualize

If you have uninstalled iVisualize®, you must modify the FixUserPreferences.ini file before installing iFIX v3.5. This file is located in the \Dynamics\Local folder.

The section [AppConfigPicturePreferences] contains the following lines:

```
TotalConfigPicturePath=1
PicturePath#0=*C:\DYNAMICS\PDB\PanelStart.ivs
```

Change TotalConfigPicturePath=1 to TotalConfigPicturePath=0 and delete the line which reads PicturePath#0=*C:\DYNAMICS\PDB\PanelStart.ivs.

You will then be able to install iFIX v3.5.

Using iFIX with Microsoft Office

You can use the Microsoft Office family of products and iFIX on the same computer. However, to ensure that VBA works correctly, install Microsoft Office products before installing iFIX.

Use the following table as a guide for installing and removing either product.

If you have...	And you want to...	Then...
Installed iFIX	Install Microsoft Office Products	Remove iFIX, install Microsoft Office products, and re-install iFIX.
Installed Microsoft Office Products	Remove Microsoft Office Products	Remove iFIX, remove Microsoft Office products, and re-install iFIX.

Optional Hardware

iFIX supports the following optional hardware. You may want to purchase one or more of these items to enhance your iFIX system.

- A Microsoft-supported touch screen or other pointing device.
- A DigiBoard™ to provide your computer with up to 9 serial ports. If you are using multiple I/O drivers or multiple ports for one I/O driver, you may require the use of a DigiBoard. GE Fanuc has tested and supports the Digichannel PC/8E.

2. Upgrading from an Earlier Version of iFIX

This chapter contains information about issues concerning upgrading to iFIX v3.5. Issues specific to upgrading from iFIX v2.5 and earlier are clearly marked.

Upgrading the iFIX v3.5 License

The instructions for upgrading your iFIX license depend on whether you upgrade from iFIX v2.6 or from an earlier version of iFIX.

Upgrading from iFIX v2.6 or Later

When you upgrade to iFIX v3.5 from iFIX v2.6 or later, you are required to update the license on each iFIX machine. GE Fanuc provides the iKeyUpdate utility to perform this task. To use iKeyUpdate, you will need to obtain an iLicense update file with specific information about your keys. For information about obtaining the iLicense file, contact your sales representative. You will receive the iLicense file by disk or by e-mail.

NOTE: *Do not install iFIX v3.5 if you do not have the iLicense file. iFIX v3.5 will function in demo mode only on a system that does not have an updated key.*

To run the iLicense file:

[1] Double-click on the iLicense filename. The iKeyUpdate dialog box opens.

The full path to your iLicense file should appear in the Update File text box. If it doesn't appear, browse to it.

[2] Click Update Now to update your hardware key.

[3] Click OK to confirm that you want to update your key. A message appears telling you that the key was successfully updated.

[4] If you want, you can run iKeyDiag to review the update to your hardware key.

Upgrading from iFIX v2.5 and Earlier

When you upgrade to iFIX v3.5 from iFIX v2.5 and earlier, you are required to replace your existing hardware key and license with a new hardware key and license. You should return your old key to GE Fanuc. For information about obtaining a new hardware key and license, or returning your old key, contact your iFIX sales representative. For more information about the new hardware key, see the *The Hardware Key* section of this manual.

Preserving Settings when Upgrading to iFIX v3.5

When you upgrade to iFIX v3.5, the following files, located in the Dynamics\Local folder, are overwritten:

- alarm.ini
- databasemanager.ini
- ddeclnt.ini
- filterederrors.ini
- fix.ini
- fixodbc.ini

- SystemTree.csv
- FindReplace.csv
- iFixScreenSaver.bmp

When iFIX is installed, all previously existing configuration files listed above are backed up to the Dynamics\Config Files Backup folder. To preserve these settings, copy your customized changes from these backup files into each current file located in the Dynamics\Local folder. Do not copy and paste the entire file into the Dynamics\Local folder because it would overwrite any new settings installed with iFIX v3.5.

Notes on Database Dynamos and Custom Programs that Run with iFIX Startup

When you install the newest release of iFIX, the product install program places a new version of the startup control file, FIX.INI, into your Dynamics\Local directory. The previous version of this file is copied to the Dynamics\Config Files Backup folder, along with the other configuration files.

If you configured Database Dynamos, also known as loadable blocks, or other custom programs to run as part of iFIX startup, you should compare the new FIX.INI file in the Dynamics\Local folder against the FIX.INI file stored in Dynamics\Config Files Backup folder. If you find any changes between the two files, add the necessary lines to the FIX.INI stored in the Local path.

Title Bar in iFIX WorkSpace

iFIX v3.0 and later provides a new title bar in the WorkSpace, which reads “Intellution iFIX Workspace.” If you have any custom applications that use the FindWindow Microsoft API call, you will need to update these applications to reflect the new title bar.

Imported Toolbars

If your Intellution iFIX WorkSpace contains toolbars imported in iFIX v2.6, such as the Proficy Historian toolbar, you will need to reimport these toolbars after upgrading to iFIX v3.5.

Windows XP Windows Styles

Because Windows XP window styles have larger title bars and menu bars, you may see some new scroll bars on your existing iFIX pictures. GE Fanuc recommends that you change the Appearance Scheme in your Display Properties dialog box to Windows Classic.

Changing Permissions for PlugAndSolve and User Globals

If you had iFIX v2.6 installed on a Windows 2000, Windows XP, or Windows Server 2003 computer, when you upgrade to iFIX v3.5 you may need to change the security properties of the user.fxg and plugandsolve.fxg files. In the Security tab of the Properties dialog for each of these two files, enable the following check box: Allow inheritable permissions from parent to propagate to this object.

Database Dynamos for iFIX v2.6 and Earlier Must be Updated for iFIX v3.5

If you have Database Dynamos, also known as loadable blocks, created in iFIX v2.6 or earlier, you must update them to work with iFIX v3.5. For the current version of the database dynamo toolkit, contact your local iFIX sales representative. Other GE Fanuc-supplied Database Dynamos have been updated and are available on the GE Fanuc web site.

Database Dynamos created in iFIX v3.0 are compatible and do not require updating.

NOTE: *Any Database Dynamos that you installed from the Allen-Bradley Productivity Pack CD for iFIX v2.6 must be updated before they will work with iFIX v3.5. Database Dynamos that you installed from the Allen-Bradley Productivity Pack CD for iFIX v3.0 work with no changes.*

Advanced Historian Not Supported with iFIX v3.5

Advanced Historian is not supported with iFIX v2.6 and later. If you have Advanced Historian installed, contact your local iFIX sales representative about upgrading to Proficy Historian, GE Fanuc's historian product.

Upgrading to iFIX v3.5 with iDownTime Installed

If you are upgrading to iFIX v3.5, you can no longer use iDownTime with Advanced Historian, because Advanced Historian is no longer supported. Contact your local iFIX sales representative about upgrading to GE Fanuc's historian product, Proficy Historian. To enable iDownTime to work with Proficy Historian, download the appropriate SIM from GE Fanuc's technical support web site.

Compatibility of iFIX v3.5 Pictures

iFIX v3.5 supports pictures created, saved, or built in previous versions of iFIX. However, pictures created, saved, or built in iFIX v3.5 are not compatible and cannot be opened in older versions of iFIX.

Resolving iFIX Displays

When you upgrade your iFIX system, or add or delete tags from your database, it is important that you run resolve on all pictures and schedules. This will ensure that you are getting maximum performance from your iFIX system.

Converting Pictures from FIX v7 to iFIX

When converting pictures from FIX v7 to iFIX, we recommend that you load the corresponding database in Database Manager before converting a picture. If you do not load the current database, you will need to manually reset each animation. For more information, see the *Using the Picture Converter Utility* section of the *Creating Pictures* manual.

Running Pictures Created in an Older Version of iFIX

If you performed your original picture development on an earlier version of iFIX and have not upgraded to iFIX v2.2 or later, you may experience color mapping errors when upgrading to iFIX v3.5.

To avoid color mapping problems, perform the following steps before saving and resolving any pictures in iFIX v3.5.

[1] Copy and save the tables.lst file from the older version of iFIX.

[2] Install the iFIX v3.5 upgrade or switch to the upgraded machine.

[3] Shut down the WorkSpace.

[4] Delete the tableconversion.lst file from the Dynamics directory (C:\Dynamics).

[5] Copy the original tables.lst file to the Dynamics directory.

[6] Restart the WorkSpace.

Using Code Written for Pictures in iFIX v2.1

Code written to position or size a picture using the ActiveWindow object in iFIX v2.1 may produce different results in an iFIX v3.5 system using multiple monitors with autoscale disabled. The incorrect positioning and sizing occurs because the ActiveWindow object in v2.1 does not account for the disabled autoscale in v3.5.

You can access the ActiveWindow object directly from the documents collection or by calling the OpenPicture subroutine.

To correct the sizing and positioning, multiply the parameters in the v2.1 script by the number of monitors.

For example:

In iFIX v2.1, you opened a picture on the second monitor of a dual monitor system by issuing the following command:

```
openpicture "picture.grf",,0,50
```

In iFIX v2.6 and later, open a picture on the second monitor of a dual monitor system by issuing the following command:

```
openpicture "picture.grf",,0,100
```

iFIX Dynamo Sets

When you install iFIX v3.5 or a Software Improvement Module (SIM) that updates any iFIX Dynamo sets, the Dynamo sets from previous versions are overwritten. To avoid losing any modifications made to these files, you can rename them or move them to a folder located outside the Dynamics picture path. Dynamo set files have an .FDS extension and are located in the Dynamics\Pic directory, by default.

Deleting Temp Directory Contents if iFIX v3.5 Installation Fails

When upgrading to iFIX v3.5, in some cases the installation will run too quickly, taking only a few seconds, or hang and not complete the process. In both cases, the product will not successfully install. If this happens, delete the contents of the Temp directory, and run the installation again.

3. Upgrading from FIX v7.x

This chapter describes how to upgrade the FIX v7.x product to the iFIX with FIX Desktop product. After you upgrade, you can continue to use your FIX32 pictures in FIX Desktop Draw and View applications, or you can migrate and create new pictures in the iFIX WorkSpace.

Before you upgrade, you need to follow the steps outlined in the *Preparing for the Upgrade to iFIX with FIX Desktop* section. The actual upgrade steps are outlined in the *Overview of Steps to Upgrade from FIX v7.x* section.

Preparing for the Upgrade to iFIX with FIX Desktop

The following sections describe the steps you need to take to prepare your computer for upgrading to iFIX with FIX Desktop. These sections are presented in the order that you should proceed with each task. These tasks are also outlined in the list below.

To prepare for the upgrade:

[1] Convert recipes to the required format by *Preparing the Recipe Files for the Upgrade*.

[2] Convert I/O driver information by *Preparing the I/O Drivers for the Upgrade*.

[3] Record the enabled environmental protection options by *Checking the Environmental Protection Settings*.

[4] Be sure to save all required files by *Backing Up FIX Files*.

[5] Compile a list of user accounts by *Exporting a Report of the Security Configuration*.

[6] Edit the user accounts in the report file by *Adding Passwords to the .RPT File*.

[7] Finish by *Generating a System Configuration Report*.

Preparing the Recipe Files for the Upgrade

If any of your current FIX32 projects uses recipes, you will need to convert these recipes to .rcx (Master text) and .rcy (Control text) files before you upgrade to iFIX with FIX Desktop. These recipes are located in the FIX32 RCM and RCC folders. This step is necessary so that you can import your recipes after installing iFIX with FIX Desktop.

To convert your recipes to .rcx and .rcy files, follow these steps:

[1] Start FIX32.

[2] If security is enabled, log in using a user account with Administrator rights.

[3] Start the FIX32 Recipe Manager, RCP.EXE.

[4] Save each master recipe as a .rcx file:

  [a] Open the master recipe (.RCM file).

  [b] Select Save As from the File menu. The Recipe Mod Log dialog box appears.

  [c] Click Save As. The recipe Save As dialog box appears.

  [d] Select Master text (*.rcx) from the Save File As Type drop-down list.

  [e] Confirm that the location is the RCM folder and file name is the same as the original file.

  [f] Click OK.

[5] Save each control recipe as a .rcy file:

[a] Open the control recipe (.rcc file).

[b] Select Save As from the File menu. The Recipe Mod Log dialog box appears.

[c] Click Save As. The recipe Save As dialog box appears.

[d] Select Control text (*.rcy) from the Save File As Type drop-down list.

[e] Confirm that the location is the RCC folder and file name is the same as the original file.

[f] Click OK.

[6] Verify that you saved all recipes by inspecting the FIX32\RCC and FIX32\RCM folders.

Preparing the I/O Drivers for the Upgrade

Before you upgrade to iFIX with FIX Desktop, GE Fanuc recommends that you use the driver configuration program to export the driver information into .CSV files. By default, these files are saved to the FIX32/PDB folder. You later use these .CSV files to import the driver information into the upgraded system.

Later in the install process, after importing the driver files, you can verify the driver migration and convert the process database for use with iFIX and FIX Desktop.

To export the driver configuration, follow these steps:

[1] Start the current installation of FIX (if it is not already running).

[2] If security is enabled, log in using a user account with Administrator rights.

[3] Start the System Configuration Utility (SCU).

[4] Select SCADA from the Configure menu. The SCADA Configuration dialog box appears.

[5] Select an installed driver (other than SIM or DDE), and click the Configure button. The Driver Configurator program starts.

[6] Select the first channel, CHANNEL1, in the browser on the left side of the window.

[7] Select Save As from the File menu. The Save As dialog box appears.

[8] Leave the default location of FIX32\PDB, and enter a name for the file in the File Name field.

[9] Select Text Files (*.CSV) from the Save as Type drop-down list.

[10] Click Save.

[11] Repeat steps 6-10 for each channel of the driver that is currently installed. Note the file names and their location for later use.

[12] Repeat steps 5-11 for each I/O driver installed on your system.

[13] Exit the SCU.

Checking the Environmental Protection Settings

Before the upgrade to iFIX with FIX Desktop, you should open the Environment Protection dialog in the Draw application and record these settings. After the upgrade, you cannot access this dialog box from Draw. Instead, you configure all environmental protection options in the iFIX WorkSpace.

To record your current environment protection settings, follow these steps:

[1] Start FIX.

[2] Open the Draw application.

[3] Select Environment from the Edit menu. The Environment Protection dialog box appears.

[4] Inspect and record the enabled options.

Backing Up FIX Files

After you create the support files for your recipe and I/O driver upgrades, you can proceed to back up your FIX v7.x files. Create a new folder on your computer, separate from the FIX v7.x (FIX32) folder, for the files you want to save.

After you back up the FIX files, you may also want to copy this new folder to another location, such as a network drive or a removable media, as a safeguard until the migration is complete.

The following table lists the files and folders that you must back up.

Files or Folder to Copy	**Location**	**Description of FIX32 Component**
*.PDB, *.CSV, *.GDB, all driver configuration files	FIX32\PDB	Process database and driver configuration files.
*.ODF	FIX32\PIC	Picture files.
*.ODT	FIX32\PIC	Template files for pictures.
*.TGE	FIX32\PIC	Tag Group Editor files.
*.KMX	FIX32\PIC	Key Macro Editor files.
*.LYT	FIX32\PIC	Layout files.
*.SBL	FIX32\PIC	Custom Dynamos.

Files or Folder to Copy	Location	Description of FIX32 Component
*.RCX	FIX32\RCM	Master recipe files, in text format. ***NOTE:*** *These files do not appear unless you followed the steps in the Preparing the Recipe Files for the Upgrade section.*
*.RCY	FIX32\RCC	Control recipe files, in text format. ***NOTE:*** *These files do not appear unless you followed the steps in the Preparing the Recipe Files for the Upgrade section.*
Draw.ini, View.ini, *.RPT	FIX32\LOCAL	Initialization settings for the Draw and View applications, and report files.
Entire HTRDATA folder	FIX32\HTRDATA	Collected historical data.
Entire HTR folder	FIX32\HTR	Historical collection preferences.
Entire ALM folder	FIX32\ALM	Alarm file and event log.
Entire APP folder	FIX32\APP	Custom data and configuration files for your iFIX applications.

Exporting a Report of the Security Configuration

Before you upgrade to iFIX with FIX Desktop, you need to export a report from the FIX Security Configuration application. This report includes a list of iFIX users along with the application features configured for each user in your FIX applications. Save this file along with the other FIX files and folders that you backed up.

IMPORTANT: *Passwords are not exported with the security configuration report; you must re-enter the passwords manually. See the Adding Passwords to the .RPT File section for details. This policy is for security purposes.*

After you install iFIX and FIX Desktop, you can import this report file into your new security configuration to recreate the user accounts on the upgraded system. You can also use this printed report as a cross reference when you reassign the new application features to each user.

To export a list of user accounts, follow these steps:

[1] Start the current installation of FIX (if it is not already running).

[2] If security is enabled, log in using a user account with Administrator rights.

[3] Start the System Configuration Utility (SCU).

[4] Enter the Security Configuration by selecting Security from the Configure menu.

[5] Select Export from the File menu. The Select File dialog box appears.

[6] Browse to the folder that you want to save the file to. By default, this folder is the FIX32\Local folder. Most likely you will want to save this file to the location where you backed up the other FIX files.

[7] Use the default name for the .RPT file, which is *Security*.RPT.

[8] Click Save.

[9] Open this report in a text editor such as Notepad or Wordpad and print a copy.

Adding Passwords to the .RPT File

The report file that you export from the Security Configuration application does not include user passwords. This is done to protect your system. If you later try to import this file into the Security Configuration application without the passwords, none of the iFIX user accounts will require passwords. In this case, you would need to re-enter each password manually. You can avoid this step entirely by editing each account in the report file from a text editor before the migration.

To add passwords to your exported file with the security configuration, follow these steps:

[1] Open the *Security.*RPT file in a text editor such as Notepad or WordPad. By default this file is located in the Dynamics\Local folder.

[2] Search the file for the first instance of the word *User:* in the report. For example:

```
User: GUEST
Login-name: GUEST
Timeout: 00:00:00
Feature: View
```

[3] Insert the text *Password:* after the user's login name.

[4] Type the user's password after the colon. An example of what this might look like is as follows:

```
User: GUEST
Login-name: GUEST
Password: GUEST
Timeout: 00:00:00
Feature: View
```

[5] Scroll down through the report and repeat steps 3 and 4 for each user in the report.

Generating a System Configuration Report

Before you migrate to iFIX with FIX Desktop, it's a good idea to create a system configuration report. This report includes information that you may need later when you are configuring your SCU. It is also helpful if you want to verify your system after the migration. This report includes:

- General node configuration information, such as the node and setup file name, as well as SCADA, network, NLS, and security options.
- System path locations for base, local, language, database, pictures, and so on.
- SCADA configuration such as the name and number of I/O drivers.
- Alarm configuration information such as default message format, application message routing, remote alarm areas, alarm network service, alarm summary, and alarm history service settings.
- List of startup tasks.
- SQL configuration.
- Auto Alarm Manager configuration to send and receive alarms.

This report contains valuable reference information on your current FIX system before the upgrade.

Steps to Generate a System Configuration Report

To generate a system configuration report, follow these steps:

[1] Start the current installation of FIX (if it is not already running).

[2] If security is enabled, log in using a user account with Administrator rights.

[3] Start the System Configuration Utility (SCU).

[4] Select Report from the File menu. The Select Report Name dialog box appears.

[5] Leave the default name in the File Name field. The default name is the node name.

[6] Click Save. A report named *NodeName*.RPT is saved to the Dynamics/Local folder. A message appears when the save is complete.

NOTE: *NodeName is the name from step 5.*

[7] Click OK to continue.

Overview of Steps to Upgrade from FIX v7.x

After you complete the steps described in the *Preparing for the Upgrade to iFIX with FIX Desktop* section, you can proceed to the actual product upgrade. Follow these steps:

[1] Complete the steps for *Installing the Hardware Key* in chapter 1.

[2] Complete the steps for *Installing the iFIX Software* in chapter 1.

[3] Follow the steps for *Installing the FIX Desktop Software* in chapter 1.

[4] *Install the Newest Drivers and iFIX Product SIMs*.

[5] *Copy the Backed Up Files into the New Product Folder*.

[6] *Import the FIX I/O Driver Configuration Information*.

[7] *Import the Security Configuration*.

[8] *Verify the I/O Driver and Database Migration*.

[9] *Import the Recipes Files*.

[10] *Reconfigure the Application Features and Passwords for Each User*.

[11] *Redefine SCADA Failover Settings*.

[12] *Enable Environmental Protection*.

[13] *Setup the Report Generator*.

[14] *Update Database Dynamos*.

Install the Newest Drivers and iFIX Product SIMs

You must install the most current drivers before you migrate the Process Database (PDB) from FIX32 to iFIX with FIX Desktop. This is necessary so that your FIX32 applications can migrate properly to iFIX with FIX Desktop.

You can install the newest drivers from the most current Driver CD, or by obtaining the driver file from the Proficy GlobalCare Support web site, http://iglobalcare.gefanucautomation.com/downloads/drivers.

To install the driver, follow the instructions that came with your driver CD, or with your download. If you install a driver from the web, the process generally entails extracting files from a .EXE and running a simple install program or manually copying files. Refer to the driver documentation for information on the install process.

After obtaining and installing the latest drivers, GE Fanuc recommends checking for the latest patches for the iFIX product. Obtain all applicable iFIX SIMs and add-ons from the Proficy GlobalCare Support web site, http://iglobalcare.gefanucautomation.com/downloads/sims. Install these SIMs on top of the current iFIX installation.

Copy the Backed Up Files into the New Product Folder

After iFIX with FIX Desktop is installed, along with the drivers, appropriate SIMs, and hardware key, you can copy your previous FIX32 files into the new iFIX with FIX Desktop install location. As you remember, you backed up these files before beginning the iFIX with FIX Desktop installation.

The following table lists the files to copy from your backup folder, and the location to copy them to (assuming you used the default iFIX directory).

Files to Copy	**Location to Copy in iFIX Folder**
*.PDB, *.CSV, *.GDB all driver configuration files	Dynamics\PDB
*.ODF	Dynamics\PIC
*.ODT	Dynamics\PIC
*.TGE	Dynamics\PIC
*.KMX	Dynamics\PIC
*.LYT	Dynamics\PIC
*.SBL	Dynamics\PIC
*.RCX	Dynamics\RCM
*.RCY	Dynamics\RCY

Files to Copy	Location to Copy in iFIX Folder
Draw.ini, View.ini, *.RPT	Dynamics\LOCAL
HTRDATA/*.*	Dynamics\HTRDATA
HTR/*.*	Dynamics\HTR
ALM/*.*	Dynamics\ALM
APP/*.*	Dynamics\APP

Import the FIX I/O Driver Configuration Information

After you copy the backed up FIX files into your new iFIX with FIX Desktop folder, you are ready to import the I/O driver configuration information.

To import the I/O driver configuration information, follow these steps:

[1] Start the iFIX SCU, by selecting Security Configuration from the iFIX folder on the Start menu.

[2] Verify that the Node name that appears on the main screen is correct. Refer to the NodeName.RPT report described in the *Generating a System Configuration Report* section if you are unsure of the name.

[3] Double-click the Database name to enter the Database Name you want to use. The Database Definition dialog box appears. Ensure it is the same name as the previous project.

[4] Click OK. A prompt appears stating that the database does not exist.

[5] Select Yes, and use the database anyway.

[6] Select SCADA from the Configure menu. The SCADA Configuration dialog box appears.

[7] Verify that the required drivers appear in the Configured I/O Drivers list. If required, add the SIM, DDE, and any other required driver to the Configured I/O Drivers list.

[8] Click OK, and then Yes when prompted.

[9] Select Save from the File menu.

[10] Close the SCU.

[11] From the Start menu, select Intellution iFIX v3.5 in the iFIX folder to display the iFIX Startup dialog box.

[12] Make sure the local node name is correct, and click the button in this dialog box to start iFIX.

[13] When iFIX is running, start the SCU again.

[14] Select SCADA from the Configure menu. The SCADA Configuration dialog box appears.

[15] Verify each driver configuration is correct by selecting the driver and then clicking the Configure button. The Driver Configurator opens.

If the driver configuration is correct, you can close the Driver Configurator and proceed to step 24.

If you need to make changes, you can make the necessary changes, save the file, and proceed to step 24. Otherwise, import the driver configuration by following steps 16-22.

[16] Select the first channel, CHANNEL1, in the browser on the left side of the window.

[17] Select Open from the File menu. The Open dialog box appears.

[18] Select Text Files (*.CSV) from the Save as Type drop-down list.

[19] Select the .CSV file for the channel.

[20] Click Open.

[21] Repeat steps 16-20 for each channel of the driver that is currently displayed.

[22] Repeat steps 15-21 for each I/O driver installed on your system.

[23] When you finish these tasks for all drivers, select Save from the file menu, and exit the Driver Configurator.

[24] Save and Exit the SCU.

Verify the I/O Driver and Database Migration

After configuring the SCU, complete the following procedure to verify the migration of the I/O drivers and to convert the Process Database:

[1] Start iFIX.

[2] Start Mission Control from the iFIX WorkSpace. You can find the button to launch Mission Control in the WorkSpace tree.

[3] Examine the information on the I/O Control tab. Ensure that data is being polled. If data is present, advance to Step 6.

[4] If there is no data present, ensure that the driver is loaded and is running. Exit Mission Control and select System Configuration to start the SCU.

[5] Select SCADA from the Configure menu, select the I/O driver and verify that the Poll Records are present. If they are not present, repeat the steps in the *Import the FIX I/O Driver Configuration Information* section.

[6] Maximize the iFIX WorkSpace and then:

[a] Start Database Manager from the WorkSpace System Tree.

[b] Verify that the I/O addresses for your data block are correct.

[7] Save and exit Database Manager.

[8] Errors that occur during the database conversion are written to the error log file (dbcvt.err). You can open this file in any text editor. Use this log file to identify the individual tags causing the problems. Consult your manual or contact GE Fanuc for more details on how to troubleshoot database conversion errors.

Import the Recipes Files

After converting and successfully running the I/O Drivers and Process Database, you can import the recipes that you previously saved as .rcx and .rcy files.

To import recipe files, follow these steps:

[1] From the iFIX WorkSpace, select the FIX Recipes folder in the system tree.

[2] Double-click the New Recipe icon. The Recipe Development utility appears.

[3] Open each .rcx file in the Dynamics\Rcm folder and save each file as a .rcm file.

[4] Open each .rcy file in the Dynamics\Rcc folder and save each file as a .rcc file.

[5] When you are finished, exit the Recipe Builder.

Import the Security Configuration

When you import the security configuration file that you created before the install, all your FIX 32 users are re-added to the iFIX with FIX Desktop software. Later you will need to re-enter passwords for these users and redefine the application features assigned to each user, since the iFIX with FIX Desktop software includes new and reassigned application features. However, before you can do that, you need to import the list of users from the security configuration.

To import the list of users from the security configuration, follow these steps:

[1] Start the current installation of FIX (if it is not already running).

[2] Select System Configuration from the iFIX group from the Start menu. The SCU opens.

[3] Select Security from the Configure menu. The Security Configuration application appears.

[4] Select Import from the File menu. The Select File dialog box appears.

[5] Browse to the folder that you copied the original .RPT file to. By default, this folder is the Dynamics\Local folder.

[6] Select the file and click Open. A message box appears warning you that the imported user accounts will not contain passwords.

[7] Click Yes to continue. Another message box appears requesting that you replace or add this file to the existing configuration.

[8] Click Replace.

IMPORTANT: *Do not shut down the SCU before moving on to the next set of steps. If you did not add passwords to the user accounts before you migrated, as described in the Adding Passwords to the .RPT File section, you could possibly lock yourself out, if security is enabled.*

[9] Continue by following the steps in the *Reconfigure the Application Features and Passwords for Each User* section.

Reconfigure the Application Features and Passwords for Each User

After you import the security configuration (.RPT) file, you can proceed to reconfigure the features available for each user and reassign new passwords, if you did not already do so.

Use the Security Configuration program to open each group profile and user profile, assign application features, and create a new password (if a password is required). Use the print-out that you created in the *Exporting a Report of the Security Configuration* as a reference when reassigning the application features to users on the upgraded system. This print-out lists the original application features available for each user.

Refer to the following sections when comparing this printed list of features with the features that appear in the Application Features Selection dialog box.

- *Identical Application Features in FIX32 and iFIX with FIX Desktop*
- *FIX32 Application Feature Names That Are Different After the Upgrade*
- *FIX32 Application Features No Longer Available After the Upgrade*
- *New Application Features Available for iFIX Users*

Steps to Assign Application Features and Passwords

NOTE: *The SCU should still be open from the previous set of steps in the Import the Security Configuration section.*

To assign the application features and a password to each user, follow these steps:

[1] Select Security from the Configure menu. The Security Configuration application appears.

[2] Select User Accounts from the Security menu.

[3] Select a user and click Modify. The User Profile dialog box appears.

[4] Enter a new password in the Password field if you want to assign a password.

[5] Click the Modify button beneath the Application feature list (the list on the right-side of the window). The Application Feature selection dialog box appears.

[6] Add the required features. Click Add All if you want to allow this user to use all application features.

See the sections that follow for information on the names used with each feature and the new features available.

[7] Click OK.

[8] Click OK to exit the User Profile dialog box.

[9] Repeat steps 3-8 for each user listed in the User Accounts dialog box.

[10] Click OK to exit the User Accounts dialog box.

[11] Select Group Accounts from the Edit menu. The Group Accounts dialog box appears.

[12] Select a group and click Modify. The Group Profile dialog box appears.

[13] Click Modify in the Application Features section of the dialog box. The Application Feature selection dialog box appears.

[14] Add the required features. Click Add All if you want to allow this user to use all application features.

[15] Click OK.

[16] Click OK to exit the Group Profile dialog box.

[17] Repeat steps 12-16 for each group listed in the Group Accounts dialog box.

[18] Select Save from the File menu to save the security configuration.

[19] Select Exit from the File menu in the Security Configuration program to return to the SCU.

[20] Save and exit the SCU.

Identical Application Features in FIX32 and iFIX with FIX Desktop

After you import your security configuration, the following application features are automatically imported for each user. You do not need to assign these features again after the upgrade since the same names are used for FIX32 and iFIX with FIX Desktop:

- Background Task Exit
- Database Reload
- Database Save
- Historical Trend Assign

- Historical Trend Collection
- Historical Trend Export
- Intellution OEM Reserved 1 - 12
- Recipe Load
- Recipe Save
- Security Configuration
- System Configuration
- System User Login
- System User Logout
- Tag Group Editor

NOTE: *While the Tag Group Editor applications may be different executables for Draw and the iFIX WorkSpace, they both use the same application feature.*

FIX32 Application Feature Names That Are Different After the Upgrade

After you upgrade to iFIX with FIX Desktop, you will notice that some of the FIX32 features correspond to different names in iFIX with FIX Desktop. These features do not automatically appear in the user's application feature list. You need to add these again.

For instance, to allow a user to access Draw, you need to add the WorkSpace Configure feature to the user's application feature list. By doing this, the user has the same access to both Draw and the iFIX WorkSpace in configure mode.

Similarly, to allow access to the View application, you need to add the WorkSpace Runtime feature to the user's application feature list. By doing this, the user has access to both View and the iFIX WorkSpace in run mode.

The application feature names are different because they take into account changes to support the iFIX system. As another example, since the FIX32 Database Builder is replaced with the iFIX Database Manager, you need to add the Database Manager to the user's feature list since the supported application actually changed with the upgrade.

When re-assigning these features for each user, use the following table to locate the FIX32 feature name and determine the corresponding name in iFIX with FIX Desktop.

Feature Name for FIX32	**Feature Name for iFIX with FIX Desktop**
Database Builder, Database Create	Database Manager
Draw	WorkSpace Configure
View	WorkSpace Runtime
Report Creator	Fix32 - Report Creator
Key Macro Editor	Fix32 - Key Macro Editor
Operating System Window	Fix32 - Operating System Window
FIX - System Shutdown	iFIX - System Shutdown
Alarm Summary Display	Fix32 - Alarm Summary Display
Historical Trend Display	Fix32 - Historical Trend Display
Run a Task from View	Fix32 - Run a Task from View
Report Generator	Fix32 - Report Generator
Historical Display Configuration	Fix32 - Historical Display Configuration

Feature Name for FIX32	Feature Name for iFIX with FIX Desktop
Exit from View	WorkSpace Runtime Exit
Database Block Add/Delete	Database Block Add-Delete
GUI Recipe Builder Operations Window	Recipe Builder Operations Window
GUI Recipe Builder Development Window	Recipe Builder Development Window
GUI Recipe Save	Recipe Save from Recipe Builder
GUI Recipe Download	Recipe Download from Recipe Builder
GUI Recipe Upload	Recipe Upload from Recipe Builder
GUI Recipe Text Output	Recipe Text Output from Recipe Builder
GUI TASK Switching	Enable Task Switching
GUI System Reboot	Enable Ctrl-Alt-Del
Historical Trend Display View Only	Fix32 - Historical Trend Display View Only
CDA Feature 1 - 54	EDA Feature 1 - 54

FIX32 Application Features No Longer Available After the Upgrade

In iFIX with FIX Desktop, it is no longer applicable to include security for these features, many of which are FIX BOS related or discontinued:

- All features that begin with the word: Batch
- Data Transfer Utility
- Dial Manager for Modem Support

- Ingredient Manager
- Inventory Manager
- Procedure Monitor
- Procedure Monitor - Hold/Resume Control
- Procedure Monitor - Modify Parameters
- Procedure Monitor - Run/Skip Control
- Procedure Monitor - Stop Procedure
- Quality Test Manager
- Recipe Handler
- Recipe Manager
- Recipe Manager - Authorize
- Recipe Manager - Remove
- Report Manager
- Scheduler
- Scheduler Configuration

New Application Features Available for iFIX Users

By upgrading to iFIX with FIX Desktop, you also obtain some new features that you can assign to your iFIX users. The features that you can choose from include:

- Application Validator - Creation of Baselines
- Application Validator - Run-time Access
- Electronic Signature - Perform By
- Electronic Signature - Verify By
- Manual Failover
- Project Backup-Restore
- Runtime Visual Basic Editor Access
- Security Synchronizer
- Startup Profile Manager
- A group of Proficy Batch Execution product features available if you have this product installed (each feature starts with the word: iBatch)

For more detailed information on using these features with your iFIX pictures, refer to the iFIX Electronic Books.

NOTE: *iFIX does not include a separate Key Macro Editor application feature. For iFIX, the Key Macro Editor (FDKeyMacros.exe) does not run outside of the iFIX WorkSpace. So, security for this feature is set at the WorkSpace-level by allowing access to the WorkSpace Configure feature. For FIX32, the Key Macro Editor (KME.exe) can run alone without Draw running. This is why the Key Macro Editor appears as a separate entry for FIX32 for use with FIX Desktop.*

Redefine SCADA Failover Settings

If your FIX32 applications used the failover feature prior to the iFIX with FIX Desktop upgrade, you need to set up failover again. Be aware that, if you want to use failover, all nodes (primary, backup, and view nodes) must be upgraded to iFIX with FIX Desktop. FIX32 failover is incompatible with iFIX.

One of the biggest changes required for iFIX failover is that you include a logical node name in your configuration. Failover in iFIX follows a different paradigm. In iFIX with FIX Desktop, the applications on the iClient communicate to the logical node name, and iFIX substitutes the physical node name at run time based on which SCADA server that is available. The combination of the logical node name, and physical primary and backup SCADA server names, is referred to as the primary and backup grouping. You configure the primary and backup grouping in the SCU of the iClient and of each SCADA server.

In other words, after you upgrade, you need to start the SCU and do the following:

- Define the local node name and local logical name in the Local Startup Definition dialog box on the primary and backup SCADA nodes.

- Define the remote node name, as well as the primary and backup server pair in the Network Configuration dialog box on the primary, backup, and view nodes.

- Define the partner SCADA in the SCADA Configuration dialog box on the primary and backup nodes.

You have two different options for the combination of Local, Logical, Primary, and Backup node names that you use in these dialog boxes after you upgrade. These options are detailed in the *Understanding Failover Options After Upgrading* section.

The following figure shows an example of these steps and the dialog boxes that you use from the SCU.

Overview of Failover Steps

The sections that follow detail how to configure these dialog boxes for either failover option you select:

- *Steps To Configure Failover Option One*
- *Steps To Configure Failover Option Two*

NOTE: *For more detailed information on failover and LAN redundancy, refer to the Mastering iFIX manual in the iFIX Electronic Books.*

Understanding Failover Options After Upgrading

To use failover and iFIX with FIX Desktop, you have two options for your current failover configuration. These options are described as follows.

Failover Configuration Option One

With this option, you first define a logical node name. You use the same primary and backup node names that you used in your FIX v7.x application. This configuration has the advantage of requiring no changes to pictures on the SCADA nodes, but the disadvantage is that all iClient pictures and tag group files will have to be updated to connect to the logical node name rather than primary node name, as in FIX32.

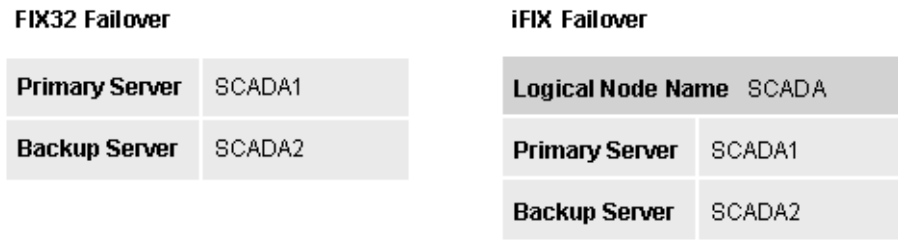
This could be a significant effort depending upon the number of files you need to inspect. See the *Steps To Configure Failover Option One* section for more details.

Failover Configuration Option Two

With this option, you use the name of the primary SCADA server from your FIX v7.x application as your logical name. Since the logical node name and primary node name cannot be the same, you then must then rename the node name for the primary SCADA. The backup node name remains the same. This configuration has the advantage of requiring no changes to pictures on the remote nodes, but anything which directly references the primary SCADA node, such as NSD tags, must be updated. See the *Steps To Configure Failover Option Two* section for more details.

Example of Failover Option One

The following graphic shows an example of how the failover settings for FIX32 differ from the iFIX failover settings when you use Option One.



Example of Failover Option One

In this example, notice that the iFIX settings includes a logical node name, SCADA. This logical node name is a new name, not used in the FIX32 failover settings. The names for your iFIX primary server SCADA1, and backup server SCADA2, remain the same as the FIX32 names.

See the *Steps To Configure Failover Option One* section for more details on how to set this configuration up in your SCU.

Steps To Configure Failover Option One

To define a new logical name and configure the backup and primary grouping using the same names as FIX v7.x, follow these steps:

[1] From the Start menu, select System Configuration from the iFIX group to open the SCU.

[2] Select Local Startup from the Configure menu. The Local Startup Definition dialog box appears.

[3] Enter a name in the Logical Node Name field. Be sure that this name is different than the local node name.

[4] Leave the name in the Local Node Name field unchanged.

[5] Click OK.

[6] Select Network from the Configure menu. The Network Configuration dialog box appears.

[7] Select TCP/IP as the network type.

NOTE: *The automatic failover option requires a TCP/IP network; it does not work with NetBIOS.*

[8] Enter the logical node name from step 3 into the Remote Node Name field.

[9] Click Add. The logical name appears in the Configured Remote Nodes list box.

[10] Select the node that you just added, and click Configure. The Remote Node Configuration dialog box appears.

[11] Select the Enable Logical Node Names check box.

[12] In the Primary Node field, enter the primary node that you used in your FIX v7.x configuration.

[13] In the Backup Node field, enter the backup node that you used in your FIX v7.x configuration.

NOTE: *If you do not remember the Primary or Backup names, refer to the Nodename.rpt file that you created in the Generating a System Configuration Report section. This report lists the node name and its partner node. The Primary and Backup names must be different than the logical node name.*

[14] Click OK.

[15] Select SCADA from the Configure menu. The SCADA Configuration dialog box appears.

[16] Enter the name of the SCADA server with which this node is paired. For the primary server, this is the name of the backup node name that you used in FIX v7.x. For the backup server, this is the name of the primary server. Refer to the names you entered in steps 12 and 13.

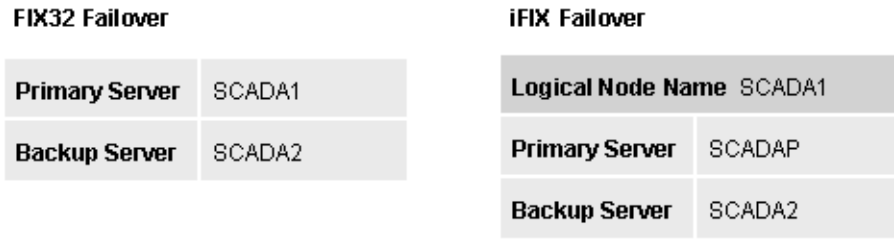
[17] Repeat steps 1-16 on the backup SCADA server. Use the same logical, primary, and backup node names that you used for the primary node. The Local Node Name field (in step 4), as well as Partner node name field (in step 16), should be different, however.

NOTE: *For failover to work, the logical node name, primary node name, and backup node name should be the same on all SCADA nodes.*

[18] Repeat steps 6-14 for each View node.

Example of Failover Option Two

The following graphic shows an example of how the failover settings for FIX32 differ from iFIX when you use Option Two.



Example of Failover Option Two

In this example, notice that the iFIX settings includes a logical node name, SCADA1. The logical node name is the same name that you assigned to the primary server in FIX32. The iFIX primary server uses a new name, SCADAP. The backup server name, SCADA2, remains the same.

See the *Steps To Configure Failover Option Two* section for more details on how to set this configuration up in your SCU.

Steps To Configure Failover Option Two

To define a logical name (using your primary SCADA name from iFIX v7.x) and reconfigure the backup and primary grouping, follow these steps:

[1] From the Start menu, select System Configuration from the iFIX group to open the SCU.

[2] Select Local Startup from the Configure menu. The Local Startup Definition dialog box appears.

[3] Enter the name that you used for the primary node name on your FIX v7.x system into the Logical Node Name field.

If you do not remember this name, refer to the *Nodename.rpt* file that you created in the *Generating a System Configuration Report* section. This report lists the node name and it's partner node. In this step you are basically moving the Local Node Name field to the Logical Node Name field.

[4] Enter a new name in the Local Node Name field.

[5] Click OK.

[6] Select Network from the Configure menu. The Network Configuration dialog box appears.

[7] Select TCP/IP as the network type.

NOTE: *The automatic failover option requires a TCP/IP network; it does not work with NetBIOS.*

[8] Enter the logical node name from step 3 into the Remote Node Name field.

[9] Click Add. The logical name appears in the Configured Remote Nodes list box.

[10] Select the node that you just added, and click Configure. The Remote Node Configuration dialog box appears.

[11] Select the Enable Logical Node Names check box.

[12] In the Primary Node field, enter the new node name from step 4.

[13] In the Backup Node field, enter the backup node name that you used in FIX 7.x.

If you refer back the *Nodename.rpt* file again, this node is referenced in the SCADA configuration as the partner node.

[14] Click OK.

[15] Select SCADA from the Configure menu. The SCADA Configuration dialog box appears.

[16] Enter the name of the SCADA server with which this node is paired. For the primary server, this is the name of the backup node name that you used in FIX v7.x. For the backup server, this is the name of the primary server. Refer to the names you entered steps 12 and 13.

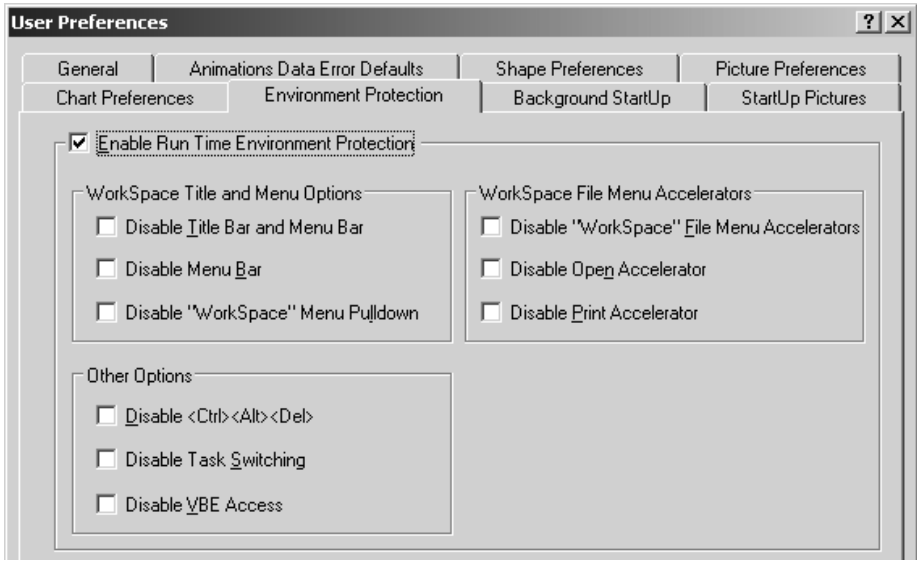
[17] Repeat steps 1-16 on the backup SCADA server. Use the same logical, primary, and backup node names that you used for the primary node. The Local Node Name field (in step 4), as well as Partner node name field (in step 16), should be different, however.

NOTE: *For failover to work, the logical node name, primary node name, and backup node name should be the same on all SCADA nodes.*

[18] Repeat steps 6-14 for each View node.

Enable Environmental Protection

If your FIX applications used the environment protection feature prior to the iFIX with FIX Desktop upgrade, you need to enable it again. To enable this feature for both iFIX and FIX Desktop, use the Environment Protection tab of the User Preferences dialog box of the iFIX WorkSpace, as shown in the following figure.



Environment Protection Options in the iFIX WorkSpace

From this dialog box, you can enable the options that your applications require. When re-entering these settings, be sure to refer back to the settings that you recorded in the *Checking the Environmental Protection Settings* section, when you prepared for the iFIX with FIX Desktop upgrade.

Important Note About Using Environment Protection

When you enable environmental protection for iFIX with FIX Desktop, be aware that both View and the iFIX WorkSpace must be running simultaneously for the following options to function properly:

- Disable <Ctrl><Alt><Del>
- Disable Task Switching

If you exit the WorkSpace or View, either by shutting down one application entirely or by switching the WorkSpace to configure mode while View is still running, these environmental protection settings no longer apply to the application still running.

Understanding Environment Protection in iFIX

When you upgrade to iFIX with FIX desktop, there are environmental protection settings that apply to both the iFIX and View. There is also a FIX32 environmental protection setting that is unavailable after the upgrade. However, with the upgrade, there are also new settings now available in the iFIX WorkSpace. The sections that follow describe these changes.

Settings that Apply to Both the iFIX WorkSpace and View

From the Environment Protection tab of User Preferences dialog box, the following settings apply to both View and WorkSpace in run mode:

- Disable Title Bar and Menu Bar
- Disable Menu Bar
- Disable <Ctrl><Alt><Del>
- Disable Task Switching

FIX32 Setting Still Available After the Upgrade

The only environmental protection setting that does not appear in the Environment Protection tab of User Preferences dialog box is as follows:

Disable Pop-up Menu

This setting is still available for FIX Desktop View, however, you must enable this setting through the FixUserPreferences.INI file.

New Settings for the iFIX WorkSpace

The remaining environmental protection options are new for the iFIX WorkSpace:

- Disable “WorkSpace” Menu Pulldown
- Disable VBE Access
- Disable “WorkSpace” File Menu Accelerators
- Disable Open Accelerator
- Disable Print Accelerator

For more details on these settings, refer to the table in the *Understanding Environment Protection* section.

Steps to Enable Environment Protection

To enable the environment protection feature after you upgrade, follow these steps:

[1] Start iFIX.

[2] Shut down View and the WorkSpace if either is running.

[3] If you want to use the Disable Pop-up Menu option, open the FixUserPreferences.ini file in the Dynamics\Local folder. In the [AppRunPreferences] section, make the following change:

```
PopUpMenu=0
```

When the PopUpMenu=1, then the right-click pop-up menu is not available. When this value is set to 0, the pop-up menu is available in View.

[4] To set the other environment settings, open the iFIX WorkSpace.

[5] Select User Preferences from the WorkSpace menu. The User Preferences dialog box appears.

[6] Select the Environment Protection tab.

[7] Select the Enable Run Time Environment Protection check box. After you enable this setting, the check boxes below become available.

[8] Select the options that you want to enable. Use the following table as a guide when assigning these options.

NOTE: *After you enable the environment protection feature in WorkSpace, you must shutdown View (if it is still running) and restart it for the environmental protection settings to apply.*

Understanding Environment Protection

The following table outlines common tasks you may want to restrict operators from doing in the run-time environment, and the environmental option associated with each task.

To restrict an operator from...	**Select this check box...**
Closing the current picture displaying in View or the iFIX WorkSpace (in run mode).	Disable Title Bar and Menu Bar. ***NOTE:*** *Be sure to also select the Full Screen in Run mode check box from the General tab and clear the Title bar and Resizeable check boxes from the Picture Preferences tab.*
Switching from View or the iFIX WorkSpace (in run mode) to another application that may be running.	Disable Task Switching

To restrict an operator from...	Select this check box...
Restarting the computer using Ctrl+Alt+Del or logging out of Windows when running View or the iFIX WorkSpace (in run mode).	Disable <Ctrl><Alt><Del>
Using the iFIX WorkSpace menu or switching to the configuration environment (while in run mode).	Disable "WorkSpace" Menu Pulldown
Accessing the Visual Basic Editor from the iFIX WorkSpace (while in run mode).	Disable VBE Access.
Using the Ctrl+O or Ctrl+P shortcuts in the iFIX WorkSpace (while in run mode).	Disable "WorkSpace" File Menu Accelerators
Using the Ctrl+O shortcut in the iFIX WorkSpace (while in run mode).	Disable Open Accelerator
Using the Ctrl+P shortcut in the iFIX WorkSpace (while in run mode).	Disable Print Accelerator

Setup the Report Generator

If you used the Report Generator prior to upgrading to iFIX with FIX Desktop, and want to use the Report Generator on the upgraded system with Office 2000 or later, be sure to obtain and install this SIM (software improvement module): WAAE2371.

You can obtain more information on this SIM and the files associated with it from the Proficy GlobalCare Support web site, http://iglobalcare.gefanucautomation.com/downloads/sims/. This SIM was also available for FIX v7.x.

If you are unsure if this SIM was installed before the upgrade, you can reinstall it. The procedure to install the files associated with this SIM is as follows:

[1] Copy the new file VDA2000.XLA to the directory in which your current Report Generator files exist.

[2] Copy the REPRTLNK.XLA, HIST_OPN.XLA and GEN.XLA files to the directory in which your current Report Generator files exist. REPRTLNK.XLA and GEN.XLA replace the existing Report Generator files which shipped with iFIX v3.5.

[3] Copy the STARTUP.XLA file to the directory in which your Excel Startup Directory exists. STARTUP.XLA replaces the existing Report Generator files which shipped with iFIX v3.5.

See the Proficy GlobalCare Support web site for more details.

Update Database Dynamos

To use FIX v7.x Database Dynamos in iFIX with FIX Desktop, you must recompile them with the iFIX Database Dynamo Toolkit. Follow the steps outlined in the iFIX Database Dynamo Toolkit and the Database Converter will update your Database Dynamos. The Database Converter runs whenever iFIX is started.

4. Other iFIX Installation Considerations

This chapter provides information you need to consider when using databases or drivers and iFIX.

Supported Drivers

iFIX supports the following drivers:

- Version 6.x
- Version 7.1 or higher

Version 7.01 drivers have known issues with iFIX and are not supported.

Special Keyboard Buttons

Some computer keyboards have special buttons for e-mail launch, internet launch, search, and other functions. These keyboard buttons may disable certain key macros or allow users to circumvent iFIX security measures.

GE Fanuc recommends that you reprogram or disable the software that operates such special buttons. Refer to your computer's documentation for instructions on disabling these buttons.

5. Networking

This chapter provides general information about iFIX-supported networks, supported network software, supported file servers, and installing network cards with Windows.

Supported Networks

If you decide to implement a networked iFIX system, make sure that all nodes are using compatible network configurations. Currently, iFIX supports the NetBIOS and TCP/IP interfaces for peer-to-peer communications in Windows NT and Windows 2000. Under Windows XP and Windows Server 2003, iFIX supports only TCP/IP interfaces. GE Fanuc has tested and recommends 3COM plug-in boards and built-in network adapters from Compaq, Dell, and Gateway.

If you have difficulty networking your computer, refer to the *Troubleshooting* chapter of the *Setting Up the Environment* manual to pinpoint and resolve your problems.

Supported Network Software List

GE Fanuc recommends and supports the network software that is provided by Microsoft Windows. The following table lists the supported software that provides the network interface and the sections

that contain setup instructions for the software. The software can be combined with Compaq, Dell, or Gateway network adapters to provide a complete networking solution.

Table 5-1: Network Software

For the network software...	Refer to the section in the *Setting Up the Environment* manual...
NetBIOS	*Working With NetBIOS*
TCP/IP	*Working with TCP/IP*

Supported File Servers

GE Fanuc supports using a file server to store System Configuration Utility, alarm area database, security, historical, and recipe data files and file server-based iClients. iFIX does not require a file server.

The following operating systems for file servers are recommended:

- Microsoft Windows NT Server.
- Microsoft Windows 2000 Server/Advanced Server.
- Microsoft Windows Server 2003.
- Novell NetWare. If you use a NetWare file server, GE Fanuc recommends that you use Microsoft's Client Service for NetWare on your iFIX node.

Refer to your file server documentation for installation and configuration instructions.

If a file server becomes unavailable and an iFIX node attempts to access a file, you may experience no response, slow response, or time-outs. These conditions are a result of continuously polling all available drives

while it waits for a response from the file server. It is recommended that you store a backup copy of the files you need on the local node. GE Fanuc does not recommend using the file server for files if it is susceptible to failure.

Installing a Network Card with a Windows NT Service Pack

If you install a network card on a node after you have installed a Windows Service Pack, that node continues to see other nodes on the network, but can no longer be seen by those nodes. The following error message is generated:

```
Not enough server storage space is
available to process this command.
```

To correct this problem, reinstall the NT Service Pack after the network card is installed.

Handling Time Zones when Using Networked FIX v6.15 and iFIX Nodes

In FIX v6.15, time zones are ignored when passing alarms over the network. For example, if a FIX v6.15 node in Boston (Eastern Standard Time), generates an alarm at 4:00 PM, then a FIX v6.15 node in Chicago (Central Standard Time) displays that alarm with a time stamp of 4:00 PM.

By comparison, iFIX uses time zones and adjusts the time stamp accordingly. For example, if an iFIX node in Boston generates an alarm at 4:00 PM, another iFIX node in Chicago displays the alarm with a time stamp of 3:00 PM.

When FIX v6.15 and iFIX transfer alarms over the network, the time zone handling is similar to FIX v6.15 as the following table shows.

When…	Then…
A FIX 6.15 node in Boston generates an alarm at 4:00 PM	An iFIX node in Chicago displays the alarm with a time stamp of 4:00 PM.
An iFIX node in Boston generates an alarm at 4:00 PM	A FIX 6.15 node in Chicago displays the alarm with a time stamp of 4:00 PM.

Networking with Other iFIX and FIX Nodes

iFIX v3.5 can share data and alarms with previous versions of iFIX, as well as with FIX32 v6.15 and FIX v7.0. FIX32 view nodes will only receive alarms from alarm areas A-P.

NOTE: *You cannot run iFIX and FIX v7 at the same time on a single computer.*

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